

# DUAL-ACTION BYPASS SUB JETTING TOOL (DABS-JT)

## Specialized Tools: BOP Cleaning Tools

During drilling operations, debris such as drill cuttings and mud cake attach to riser, Blowout Preventer (BOP) and wellhead walls. Removing these contaminants is crucial to ensuring clean cementing and completion operations.

### Applications

The DUAL-ACTION BYPASS SUB JETTING TOOL (DABS-JT) from M-I SWACO is designed to run in a cleanup string for jetting the riser, BOPs and wellhead areas.

### Features

- One-piece, full strength mandrel
- Balls retained on seats in tool
- Available with 11 or 16 in. (279 or 406 mm) OD sleeve
- Sixteen 0.437 in. jet nozzles at 22° phasing

### How it works

The DABS JETTING TOOL is run in the open position for jetting and cleaning while traveling through the BOPs, wellhead and riser. The external jetting nozzles on the sub are then closed, by dropping an actuator ball, to allow flow through the sub and to circulate the string. By dropping another ball, they are reopened when pulling out, allowing jetting of the riser and BOPs. The balls remain on seat at all times.

### Advantages

- When using the DABS unit to jet the riser, wellhead or BOP stack, the large 11 or 16 in. (279 or 406 mm) OD sleeves allow the jets to clean closer to the profile



# SINGLE-ACTION BYPASS SUB JETTING TOOL (SABS-JT)

## Specialized Tools: BOP Cleaning Tools

During drilling operations, debris such as drill cuttings and mud cake attach to riser, Blowout Preventer (BOP) and wellhead walls. Removing these contaminants is crucial to ensuring clean cementing and completion operations.

### Applications

The SINGLE-ACTION BYPASS SUB JETTING TOOL (SABS-JT) from M-I SWACO is designed to run in a cleanup string for jetting the riser, BOPs and wellhead areas.

### Features

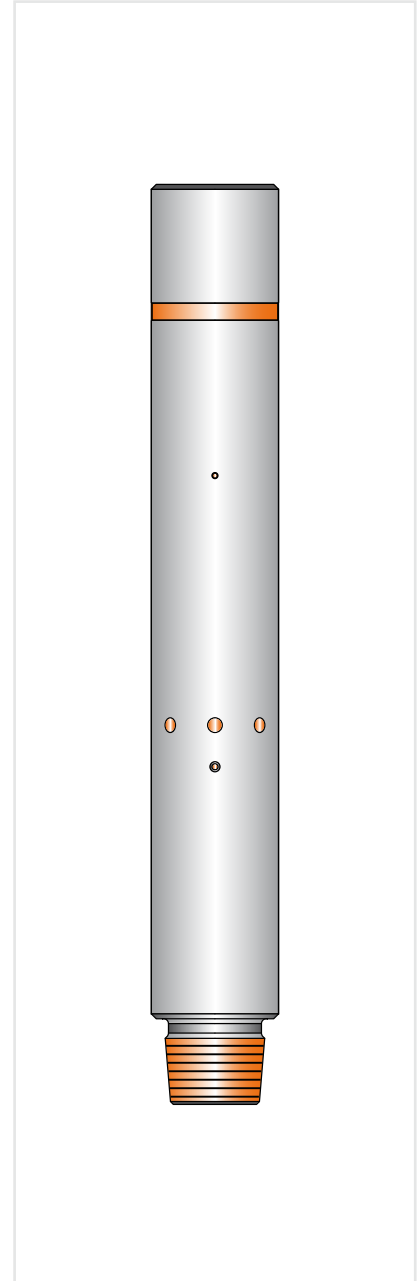
- One-piece, full-strength mandrel
- Balls retained on seats in tool
- Designed to boost annular velocity
- Available with 11 or 16 in. (279 or 406 mm) OD sleeve
- Sixteen 0.437 in. jet nozzles at 22° phasing

### How it works

The sub is run with the nozzles in the closed position. Dropping an actuator ball opens them so the pump rate can be increased to jet through the nozzles for cleaning. Dropping a second ball closes the nozzles to allow flow through the sub and to circulate the string. The balls remain on seat at all times but, when the nozzles are closed, pumping can be resumed through the string below.

### Advantages

- When using the SABS JETTING TOOL to clean the riser, wellhead or BOP stack, the large 11 or 16 in. (279 or 406 mm) OD sleeves allow the jets to clean closer to the profile
- Where it is necessary to reopen and close ports after the initial cycle, two SABS units can be run in tandem



# SHORT TRIP JETTING SUB (STJS)

## Specialized Tools: BOP Cleaning Tools

The SHORT TRIP JETTING SUB (STJS) tool from M-I SWACO is designed for mechanical wellbore cleanup in risers, Blowout Preventers (BOPs) and wellheads, and is well suited for operation from platforms, jackups and land locations.

### Advantages

The STJS unit is suitable for operation from platforms, jackups and land rigs

### Operation

When the STJS tool is in the BOP stack, a maximum of 10 bbl/min should be pumped through the tool. When in the riser, an optimum rate of 25 to 30 bbl/min should be pumped (dependent upon riser ID and drill-pipe OD) to achieve a minimum annular velocity of 80 ft/min (24 m/min) to efficiently carry debris from the well. As much as 25 to 30 bbl/min can be achieved by pumping through the tool

alone or by a combination of pumping through the tool and through the choke/kill/booster lines.

The STJS tool is normally run in conjunction with, and above, the WELL PATROLLER\* or WELL PROTECTOR\* tools. Any pieces of debris that are dislodged, but not circulated out during the cleaning operation, are collected in the WELL PATROLLER or WELL PROTECTOR tools as they fall or are pulled out of hole.

### How it works

The SHORT TRIP JETTING SUB (STJS) unit is equipped with standard drill-pipe box-up/pin-down connections for insertion in a cleanup or drillstring when it is necessary to jet. The tool is generally short-tripped and run in hole and pulled out of hole with the jets open at all times.

### Features

- One-piece mandrel, full drill-pipe strength
- Simple, robust design
- Six replaceable jet nozzles
- Standard drill-pipe box-up/pin-down connections
- Can be used to jet BOP and risers with 11 and 16 in. (279 and 406 mm) sleeves available

### Advantages

- Ball drop is not required to open the tool



# WELLHEAD BRUSHING/JETTING TOOL

## Specialized Tools: Wellhead Cleaning Tools

The WELLHEAD BRUSHING/JETTING TOOL is designed to ensure the multiple profiles of wellheads are clean and free of debris prior to the completion or re-entry. The wellhead area has been widely identified as requiring special attention during wellbore clean up operations. The tool can be used to ensure all profiles are clean, which can reduce the incidence of non-productive time.

### Applications

The WELLHEAD BRUSHING/JETTING TOOL simultaneously performs brushing and jetting functions on wellheads.

### How it works

The WELLHEAD BRUSHING/JETTING TOOL is constructed on a one-piece, full-strength mandrel with box-up/pin-down drill-pipe connections. A brass bristle-impregnated sleeve with jetting slots is mounted on the mandrel and sized for the various ID changes within the hanger area. The sleeve is rotationally locked to the mandrel and provides an annular space for circulation between the ID of the sleeve and the OD of the mandrel. A bearing/diverter ring is mounted at the bottom of the bristle sleeve to act as a “no-go” ring when running in hole.

### Features

- One piece, full strength mandrel
- Brass bristle impregnated sleeve
- Integral jetting slots on tool
- Jetting activated by bearing/diverter ring
- Simple and easy to operate

### Advantages

- Ensures surfaces are cleaned and free of debris before running the completion
- Reduces NPT

